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PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket No. P6452

Applicant:	Joseph J. Ervin
Serial No:	09/867,129
Filed:	May 29, 2001
For:	METHOD AND APPARATUS FOR CONFIGURING MULTIPLE SEGMENT WIRED-AND BUS SYSTEMS
Examiner:	K. T. Huynh
Art Unit:	2112

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Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal

The review is requested for the reason(s) stated on that attached sheet(s).

Respectfully submitted

Paul E. Kudirka Date: 9/16/05

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REASONS FOR REVIEW

Claims 1-11, 13, 17-28, 30 and 34 have been rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,542,953 (Porterfield.) Applicant contends that the examiner has failed to establish a *prima facie* basis for rejection the claims as anticipated.

The present invention is directed to configuring I^2C bus systems that use bus bridges in which each bridge responds to configuration commands sent to its assigned bridge ID which both the examiner and applicant's attorney interpreted as an address. In order to configure this system, the configuration software initially sets the bridge IDs of all bridges to the same initial bridge ID value so that all bridges effectively have the same address. Then, the configuration software repeatedly sends configuration commands to this address. Normally, since all bridges have the same address, all bridges on the same bus level would respond to this command. However, because of the "daisy chain" connections between the bridges at each bus level only one bridge responds. Once that one bridge has been configured, its bridge ID value is changed from the initial value to another value. This change in Bridge ID value causes the daisy chain to enable the next bridge on the bus level. Thus, when the next configuration command is sent to the initial Bridge ID, another bridge on the bus level will respond instead of the bridge just configured. In this manner, by repeatedly sending configuration commands to the initial bridge ID, the entire bus network can be configured.

The Porterfield patent relates to PCI bus systems and uses basic PCI configuration protocol to configure the PCI bus system. It is well-known that PCI bus systems comprise a set of interconnected busses and each bus has a set of slots into which PCI devices can be plugged. Each PCI device, including PCI-PCI bus bridges has a unique address in this system in which the address is related to the slot into which the device, or bridge, is plugged. Thus, a PCI bus system cannot be configured by repeatedly sending configuration commands to the same address as discussed above because doing this would cause the same PCI device to respond. Instead, in accordance with PCI configuration protocol, a PCI bus is scanned by repeatedly

generating different addresses, each of which corresponds to a slot on the bus. An attempt is made to read a register at each different address (a configuration read request), and, if there is a response, then configuration commands are sent to that address.

The operation of the inventive system is recited in the claims. Claim 1 recites, in lines 9-11, "initially setting the bridge ID of all bridges to the initial bridge ID value so that all bridges start with the same bridge ID." The examiner argues that Porterfield discloses configuration registers and that these configuration registers would have an initial value at the time that they are coupled to the host bus, presumably some reset value. However, claim 1 further recites, in lines 14-16, "repeatedly sending configuration commands and data to the initial bridge ID value." The examiner argues that this recitation is disclosed in Porterfield at column 2, lines 47-60. However, this section of Porterfield merely states that configuration commands are sent to the PCI bridges and does not discuss the address to which the commands are sent. It is clear that the commands would not be sent to a reset address of the configuration registers, that is, the "initial address" that the examiner proposes. Instead, the commands are sent to different addresses, each of which corresponds to a slot on the bus in accordance with normal PCI operation. See, for example, Porterfield, column 6, lines17-30. Porterfield does not repeatedly send configuration commands to an initial bridge ID as defined in claim 1.

Claim 1 further recites, in lines 12-13, "configuring bridges on a hierarchical level so that only one bridge at a time responds to a configuration command sent to **the initial bridge ID value**" (emphasis added). The examiner argues that this step is disclosed in Porterfield, column 6, lines 12-43. However, Porterfield, column 6, lines 12-43 clearly states that configuration read requests are sent to various different address, not to a single initial value as recited in claim 1. Thus, the step of configuring the bridges as recited in claim 1 is undisclosed and unnecessary in Porterfield because it never sends repeated configuration commands to the same initial address.

Thus, claim 1 recites steps that are not disclosed in Porterfield. Consequently, a prima facie rejection has not been established. The remaining independent claims, 18, 35 and 36 contain parallel limitations and, thus, clearly distinguish over Porterfield.

Dependent claims 2-11, 13, 17, 19-28, 30 and 34 depend on one of independent claims 1 or 18 and incorporate the limitations thereof. Therefore, they distinguish over Porterfield in the same manner as the independent claims.

Claims 14-15 and 31-32 have been rejected as obvious under 35 U.S.C. §103(a) over Porterfield in view of U.S. Patent No. 6,260,092 (Story.) Claim 14, which is dependent on claim 13, recites that all bridges on the same hierarchical level are connected in a daisy chain **so that only one bridge at a time responds to the initial bridge ID value**. Applicant contends that neither of the references and, therefore, the combination, teaches or suggests this limitation and that the examiner has failed to establish a *prima facie* basis for the rejection. As discussed above, configuring the bridges so that only one bridge responds to an initial bridge ID value is not disclosed in Porterfield and is unnecessary in Porterfield. In Story, bus bridges are connected in a daisy chain, but not so that only one bridge responds to an address value as recited. Rather, the bridges are connected in a daisy chain that passes signals from one bridge to another until the bridge to which the signals are addressed responds. In addition, since Young is a PCI system, all of the bridges would have different addresses in accordance with normal PCI architecture. There would be no reason for the bridges to be connected in Young so that only one responds to a given address. Thus, the combination of Story with Porterfield cannot teach or suggest this limitation because none of the references discloses or suggests it. Claim 15 further recites that the bridge ID must be changed in one bridge before another bridge can respond to the predetermined bridge ID. Story does not disclose this type of operation and neither does Porterfield. Thus claims 14 and 15 patentably distinguish over the cited references. Claims 31 and 32, which contain similar limitations also distinguish over the cited references in the same manner.

Claims 16 and 33 have been rejected as obvious under 35 U.S.C. 103(a) over Porterfield in view of U.S. Patent Nos. 5,771,387 (Young) and 6,044,207 (Pecone.) The examiner indicates that the Porterfield does not disclose a configuration in which two unidirectional bridges are connected in parallel, but that Pecone discloses that PCI bridges can be unidirectional and Young discloses that PCI bridges can be connected in parallel. Both Young and Pecone disclose PCI systems, and nothing in either of these

references discloses that configuration should proceed other than in accordance with standard PCI protocol, as disclosed Porterfield. Thus, their combination Porterfield cannot change the basic configuration operation as discussed above. Since claims 16 and 33 are dependent on claims 1 and 18, respectively, they distinguish over the cited combination in the same manner as claims 1 and 18 distinguish over Porterfield.